

CLIMATE CHANGE | OPINION

Population Decline Will Change the World for the Better

A future with fewer people offers increased opportunity and a healthier environment

By Stephanie Feldstein on May 4, 2023



Commuters crossing crowded London Bridge on the way home from work, London, England, UK. Credit: Alex Segre/Getty Images

China's population has fallen after decades of sky-high growth. This major shift in the world's most populous country would be a big deal by itself, but China's hardly alone in its declining numbers: despite the momentous occasion of the global population surpassing eight billion late last year, the United Nations predicts dozens of countries will have shrinking populations by 2050. This is good news. Considering no other large animal's population has grown as

much, as quickly or as devastatingly for other species as ours, we should all be celebrating population decline.

Declining populations will ease the pressure eight billion people put on the planet. As the population and sustainability director at the Center for Biological Diversity, I've seen the devastating effects of our ever-expanding footprint on global ecosystems. But if you listen to economists (and Elon Musk), you might believe falling birthrates mean the sky is falling as fewer babies means fewer workers and consumers driving economic growth.

But there's more to the story than dollars. Where our current model of endless growth and short-term profits sacrifices vulnerable people and the planet's future, population decline could help create a future with more opportunity and a healthy, biologically rich world. We're at a crossroads—and we decide what happens next. We can maintain the economic status quo and continue to pursue infinite growth on a finite planet. Or we can heed the warning signs of a planet pushed to its limits, put the brakes on environmental catastrophe, and choose a different way to define prosperity that's grounded in equity and a thriving natural world.

Every person on the planet needs food, water, energy and a place to call home. And if we want to increase wealth equity and quality of life—as we should—the demands per person will increase, even with the best-case scenario for sustainable development.

For example, as China grew in population and wealth, so did its demands on the planet. China's per capita environmental footprint is less than half of the U.S., but the country's total environmental footprint is twice as large, with the nation responsible for one quarter of imported deforestation and one third of global greenhouse emissions. Reducing consumption in high-income countries is necessary, but insufficient on its own if global population continues to rise.

As the human population has doubled over the past 50 years, wildlife populations have plummeted by an average of 69 percent. We've already altered at least 70 percent of Earth's land, with some reports putting that number at 97 percent. Our activities have driven wildlife from their homes and destroyed irreplaceable ecosystems.

The loss of biodiversity is tragic in itself. A world without elephants, hellbender salamanders and the million other species at risk of extinction in the coming decades would be deeply impoverished. Wild plants and animals enrich our lives and hold vital ecosystems together. The fresh water we need to survive, the plants we rely on for food and medicine, and the forests we depend on for clean air and carbon sequestration are all the product of complex interactions between life-forms ranging from microbes and pollinators to carnivores and scavengers. When even a single thread is pulled from that tapestry, the entire system can unravel.

For those more worried about economics than life on Earth, the World Bank estimates that ecosystem collapse could cost \$2.7 trillion a year by 2030. Deloitte recently estimated climate chaos could cost the United States alone \$14.5 trillion by 2070 as we respond to the increasingly frequent and intense damage caused by extreme weather and wildfires, and the threats to communities, farms and businesses from droughts and unpredictable weather. While many assume population decline would inevitably harm the economy, researchers found that lower fertility rates would not only result in lower emissions by 2055, but a per capita income increase of 10 percent.

Lower fertility rates also typically signal an increase in gender equality. Better-educated women tend to have fewer children, later in life. This slows population growth and helps reduce carbon emissions. And when women are in leadership roles, they're more likely than men to advance initiatives to fight climate change and protect nature. These outcomes are side effects of policies that are necessary regardless of their impact on population.

In places where these cultural changes have happened, there's no going back. Even in China, where fertility was initially reduced by the draconian one-child policy, women don't want to give up their educational and economic freedom now that larger families are allowed.

Population decline is only a threat to an economy based on growth. Shifting to a model based on degrowth and equity alongside lower fertility rates will help fight climate change and increase wealth and well-being.

If populations decline, some places will have to adapt to societal aging. If we choose a deliberate decline resulting from increased well-being, then we could take the fear out of family planning and make a better future for people and the planet.

We must choose. We can let the growth-based economy determine our planet's fate, or we can stop pretending that demography and ecology are two separate issues.

With the first scenario we'll find that an economy fueled by limitless population growth makes it increasingly difficult to address environmental crises. Communities are already struggling in the face of worsening droughts, extreme weather and other consequences of climate disruption—and population pressure makes adaptation even harder. A growing population will further stress damaged ecosystems, reducing their resilience and increasing the risk of threats like pandemics, soil desertification and biodiversity loss in a downward spiral.

With the second—slow decline and all that comes with it—we can ultimately scale back our pressure on the environment, adapt to climate change, and protect enough places for

imperiled wildlife to find refuge and potentially recover.

But despite how inevitable population decline will benefit people and the planet, world leaders have done little to prepare for a world beyond the paradigm of endless growth. They need to prepare for an aging population now while realigning our socioeconomic structures toward degrowth. Meanwhile, immigration can help soften some of the demographic blows by bringing younger people into aging countries.

Governments must invest in health care, support caregivers, help people who want to work longer do so, and redesign communities to meet the housing, transportation and service needs of older people. We need to move our economy toward one where people and nature can thrive. That means managing consumption, prioritizing social and environmental welfare over profits, valuing cooperation and recognizing the need for a range of community-driven solutions. These practices already exist—in mutual-aid programs and worker-owned cooperatives—but they must become the foundation of our economy rather than the exception.

We also need to bring together the reproductive rights and gender equity movements, and the environmental movement. Environmental toxicity, reproductive health and wildlife protection are deeply intertwined. Pollution, climate change and degraded ecosystems harm pregnant people, fetuses and children, and make it difficult to raise safe and healthy families.

Finally, we need what the United Nations' most recent climate and biodiversity reports drive home, and conservationists, climate scientists and policy makers have demanded for decades: a rapid, just transition to renewable energy and sustainable food systems and a global commitment to halting human-caused extinctions now.

Population stabilization and decline will inevitably be achieved by centering human rights. Policy makers must guarantee bodily autonomy and access to reproductive health care, gender equity, and women and girls' education.

By addressing the crises in front of us, empowering everyone to decide if and when to have children, and planning for population decline, we can choose a future of sustainable abundance.

This is an opinion and analysis article, and the views expressed by the author or authors are not necessarily those of Scientific American.

ABOUT THE AUTHOR(S)

Stephanie Feldstein is the population and sustainability director at the Center for Biological Diversity.

Scientific American is part of Springer Nature, which owns or has commercial relations with thousands of scientific publications (many of them can be found at www.springernature.com/us). Scientific American maintains a strict policy of editorial independence in reporting developments in science to our readers.

© 2023 SCIENTIFIC AMERICAN, A DIVISION OF SPRINGER NATURE AMERICA, INC.

ALL RIGHTS RESERVED.